

Oral Health Fact Sheet for Medical Professionals

Children with Epilepsy

Epilepsy is a brain disorder characterized by excessive neuronal discharge that can produce seizures, unusual body movements, and loss or changes in consciousness. Transient episodes of motor, sensory, or psychic dysfunction, with or without unconsciousness or convulsive movements may be present.

(ICD 9 code 345.9)

Oral Manifestations and Considerations

Oral

- Increased risk for dental caries
- Increased risk for oral trauma
- Medication-induced gingival hyperplasia, bleeding gums, and delayed healing

Other Potential Disorders/Concerns

- ADHD
- Learning disabilities
- Anxiety
- Depression

Oral Side Effects of Commonly Prescribed Medications

Management

Medication

| SYMPTOM | MEDICATION | SIDE EFFECTS |
|----------|--------------------------------|--|
| Seizures | <i>Phenytoin</i> (Dilantin) | Xerostomia and Gingival hyperplasia |
| | <i>Carbamazapin</i> (Tegretol) | Bone marrow suppression and |
| | <i>Valproic Acid</i> | decreased platelet count possible increased bleeding and postoperative infection |
| | <i>Gabapentin</i> (Neurontin) | Xerostomia, fever, mood changes, Erythema Multiforme, Thrombocytopenia, kidney failure, viral infections, hyperkinesia and other neurologic symptoms |
| | <i>Levetiracetam</i> (Keppra) | Hostility, irritability, mood changes, depression, anorexia, infection |

Surgery

- Temporal Resection or Sectioning of Corpus Callosum
- Implanted Vagal Nerve Stimulator (VNS) – Does not require antibiotic prophylaxis

Children with Epilepsy continued

Parent/Caregiver Support and Guidance

- Monitor child for anti-epileptic medication induced gingival hyperplasia. Encourage meticulous oral hygiene for the best prevention.
- Recommend a mouth guard if necessary for children with uncontrolled epilepsy.
- Discourage consumption of cariogenic foods and beverages .
- Prescribe sugar-free medications if available.
- Recommend preventive measures such as topical fluoride and sealants.
- Advise the use of fluoridated toothpaste twice daily and support the family in following dental care instructions.
- Instruct caregiver on appropriate protocol following dental trauma (seek immediate professional care and locate/preserve missing tooth).
- Recommend rinsing with water thoroughly after taking each dose of sugar containing medication and frequent water intake for patients taking xerostomic medication.
- Review safety issues appropriate to the age of the child, such as car seats, stair gates, bike helmets and mouth guards to prevent oral-facial trauma.
- Discuss habits that may harm the child's teeth such as propping baby bottles, putting child to bed with bottle.
- Refer to dentist any oral developmental abnormalities.

Further information (Medical Anticipatory Guidance, Dental Anticipatory Guidance, Oral Health Guidance for parents/Caregivers and Dental Professional Fact Sheet for Epilepsy) can be found at:

http://dental.washington.edu/departments/omed/decod/special_needs_facts.php

References

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- Stoopler, ET, Sollecito, TP, Greenberg, MS. (2003) Seizure disorders: update of medical and dental considerations. *Gen Dent*, 51(4): 361-66.
- Kossoff EH, Zupec-Kania BA, Rho JM. (Jun 17, 2009) Ketogenic Diets: An Update for Child Neurologists. *J Child Neurol*. 4(8): 979-88. Epub. Review.
- Dymont, H.A., Casas, M.J. 1999 Dental care for children fed by tube: a critical review. *Spec Care Dentist*, 19(5):220-4. Review.

Additional Resources

- [NIH Institute for Epilepsy](#)
- [Special Care: an Oral Health Professionals Guide to Serving Young Children with Special Health Care Needs](#)
- [Bright Futures Oral Health Pocket Guide](#)
- [American Academy of Pediatrics Oral Health Initiative](#)
- [American Academy of Pediatric Dentistry: 2008-09 Definitions, Oral Health Policies and Clinical Guidelines](#)
- [MCH Resource Center](#)
- [ASTDD-Special Needs](#)
- [Block Oral Disease, MA](#)
- [NOHIC-NIDCR publications](#)





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